

of its beauty by the destruction of the ciliæ, or actual tearing of the wings by contact with the surrounding herbage.

The woodcut accompanying this article gives a better idea of the species than would a minute description of the perfect insect, but the following are the chief characteristics:—

The ground colour of *Nonagria sparganii* is a bone-coloured grey, paler along the veins, and with more or less reddish buff interspersed. The principal characters are seven dark dots within the ciliæ of the fore wings, and the shaded central line with its pale ocellus formed by the three or four black dots placed close together. The hind wings of the male have veins dusted with deep grey. There is considerable variation in the intensity of colour in a series of specimens, but the above are the leading features. The continental specimens are very much redder and otherwise differ from any of those as yet bred in Britain. It is a common species on the Continent of Europe, where it is said to feed chiefly on the reed-mace (*Typha latifolia*).

The proper place for this species in our collections is between *Nonagria cannae* and *N. typhae*, the imagines having some of the characters of both those species.

We are indebted to Mr. Sydney Webb for kindly lending the specimens, bred by himself, from which the figures are taken.

JOHN T. CARRINGTON.

Royal Aquarium, Westminster, January, 1880.

## NOTES ON HYMENOPTERA.

BY JOHN B. BRIDGMAN.

HYMENOPTERA, as might be expected from the very unfavourable season just passed (1879), have been unusually scarce in this neighbourhood, more especially the Aculeates. *Anthophora acervorum*, instead of swarming on every sunny bank in early spring, was very scarce. Willow blossoms were almost deserted instead of being alive with several species of *Andrena*; and, later in the season, the brambles, generally so attractive to bees, were almost as free from aculeate visitants as the spring flowers were. The only bee that really abounded was *Bombus virginalis*; these were unusually abundant. Several species of this genus I scarcely saw at all. Wasps were equally conspicuous by their

absence. The females of the common garden ant, which are generally met with crawling about everywhere in the middle of August, this past season were rarely to be seen. In spite of the unfavourable season I was fortunate enough to add three species of Fossores and one bee to my Norfolk list, viz., *Crabro podagricus*, *C. tibiale*, *Mimesa equestris*, and *Stelis phæoptera*. Although I searched many times I could not find a single specimen of *Macropis labiata*, and the few Aculeates which were to be seen were all very late, as might be expected. On clearing out some of my boxes, &c., I found a male of *Tetramorium lippula*, one of our rarer British ants, which I had taken in the neighbourhood of this city in 1878, and had overlooked. Sawflies, generally speaking, were also scarce, but still *Nematus Ribesii* were a perfect pest, denuding the gooseberry bushes of their leaves. The unusual abundance of this insect has already been noticed in this magazine. Several other sawflies were plentiful in the autumn; I never before saw so many *Allantus tricinctus* and *A. scrophulariæ*. In the spring I took about half a dozen of that pretty little sawfly, *Eriocampa nigripes*, flying about the blackthorn.

In Mr. Marshall's 'Catalogue of Ichneumonidæ,' under *Cryptus carnifex*, he gives *C. elegans*, Desv., as a synonym; these are clearly two distinct species. Gravenhorst and Taschenberg did not know the male of *carnifex*. Thomson, in his 'Opuscula Entomologica,' fasc. 5, p. 513, describes both the sexes, under the name of *Hygrocryptus carnifex*, and gives *varicoxis*, Tasch., as the male; it may be so, but Thomson describes the male as having a red metathorax, which quite accords with the two males of *carnifex* I have taken, whilst Taschenberg makes no mention of any colour in this part. Thomson also describes another species of the same subgenus as *Drewseni*, which is evidently *elegans* of Desvignes. This latter name Thomson has given to a n. sp. of *Hoplocryptus*, another of his subgenera, and which name consequently ought to be altered. I have taken two males of another species of the same group of the genus *Cryptus* as *C. carnifex* and *C. elegans*, which I believe will prove to be the male of *C. palustris*, Thoms.; in *lib. cit.*, p. 514, he describes the female only, and says it is very like *carnifex*, but has the metathorax, coxæ, trochanters, and base of petiole black. The female has no white ring on the antennæ; the insect is a little smaller, which agrees exactly with my insects, adding that the third and

fourth joints of the hind tarsi are white, and one of them has the first segment entirely black. Amongst some Ichneumons, which Mr. Fitch kindly sent me to look over, I detected two of Holmgren's species of *Limneria*, whilst in my collection I found a third. The three together leave no doubt in my mind as to their identity: they are very similar in shape and colour, but differ from each other as follows:—all have the hinder femora black, and are about from one and a half to two lines long, and have a black abdomen.

A. Hind tibiæ whitish, base and apex blackish.

1. Aculeus about as long as the first segment of the abdomen.

*L. lugubrina*, Holm. Bred by Mr. Bignell.

2. Aculeus about half the length of the abdomen.

*L. cursitans*, Holm.

B. Hind tibiæ whitish, apex and before the base blackish.

Aculeus as long as *L. cursitans*, and antennæ shorter.

*L. volubilis*, Holm. Bred by Mr. Weston.

These are all new to the British list. I have also taken *Phygadeuon aberrans*, Tasch., which is like *P. abdominator*, with a punctured abdomen; also a small species of the same genus, which I believe to be *P. nanus*, Grav.

The two following species of *Phygadeuon* I cannot find described in Taschenberg or Gravenhorst:—

*P.* Black; 2-5 joints of antennæ, abdomen from the 1st segment, femora, tibiæ, and tarsi red; extreme base and apex of hind tibiæ and hind tarsi dark; mesothorax coarsely punctured in the middle; metathorax shining, coarsely wrinkled; areæ very distinct; supero-medial, hexagonal much narrower in front than behind; 1st segment of the abdomen elongated; tubercles projecting and placed much behind the middle; from them it gradually widens, and is coarsely and distinctly long-wrinkled; remaining segments polished, 2nd very indistinctly long-wrinkled; abdomen elongate-ovate; transverse anal nervure divided less than one-third from the bottom; 1st joint of the flagellum about three times as long as thick; aculeus about one-sixth the length of the abdomen. Female. Length, 6·5 mill. Taken August 4th. Norwich.

The other species was sent to me by Mr. C. G. Barrett from Pembroke.

*P.* Black; abdomen from the 1st segment and legs chestnut;

base of coxæ, extreme base and apex of hind tibiæ and hind tarsi brownish; mesothorax punctured; metathorax punctured, and areæ distinct; supero-medial area almost semicircular; 1st and 2nd segments of the abdomen strongly and distinctly longitudinally striated; 1st segment slender, gradually tapering, with a slight depression in the centre, and tubercles scarcely projecting; transverse anal nervure divided much below the middle; aculeus about one-fourth the length of the abdomen. Female. Length, 5 mill.

I have met with several specimens of *Tryphon ephippium*, Holmgren. This species is readily distinguished by its smooth and shining metathorax, and is unrecorded by Mr. Marshall.

Mr. Fitch sent me, for examination, an *Ophion* with a yellow scutellum, which he thought different from *O. obscurum*. I was doubtful, but on its being sent to Dr. Kriechbaumer he identified it as certainly his *Ophion minutus* (described Ent. Nach., v. 105). It is, therefore, a species new to the British list; the specimen, a female, was captured by and received from Mr. Bignell. The neuration in Vollenhoven's figure ('Pinacographia,' pl. 39, fig. 1), is not correct.

Amongst my *Polyblasti* I detected three specimens of Holmgren's *Monoblastus lævigatus*. This genus is divided from *Polyblastus* by not having the clypeus separated from the face by an impressed line.

The pretty little *Perilissus pictilis*, Holm., figured in 'Pinacographia,' I have taken in this neighbourhood; also a small species which I cannot find in either Gravenhorst or Holmgren, and have, therefore, added the description:—

Black; abdomen from the 1st segment, legs, and antennæ beneath reddish ochre colour; apex of abdomen and 2nd segment sometimes clouded; coxæ, apex of hind tibiæ and tarsi brown; wings blackish brown and very dark; abdomen and face densely clothed with pale fulvous pubescence; antennæ about as long as the body; 1st segment subpetiolated; thorax smooth and shining; metathorax without area; areolet of wing oval and petiolated. Length about 5 mill.

This species has the wings unusually dark, and for that reason I would propose the name of *Perilissus fumatus* for it, should it be a new species.

Amongst some Ichneumons collected by Mr. Billups was a

specimen of *Pimpla* I could not identify as belonging to any recorded British species. It appeared to me to answer best to Gravenhorst's *P. mandibularis*. Mr. Fitch has sent it to Dr. Kriechbaumer, who does not agree with this determination, but was not able to name it. It was then sent with some other Ichneumons, by Kriechbaumer's advice, to Herr C. G. A. Brischke, who says it most probably is *P. mandibularis*, and so for the present it must remain.

I bred from the cocoons of *Apanteles glomeratus* both sexes of *Hemiteles imbecillus*, Gr., by whom the male only is described, nor does Taschenberg describe the other sex. To their descriptions it only wants to be added "Aculeus of female half the length of the abdomen." I have a fine specimen of *Herpestomus* which I cannot find described:—2-4 segments of abdomen entirely red, remainder red-margined; antennæ reddish brown; flagellum paler at the base; legs red; apical half of hind femora and extreme apex of hind tibiæ dark; 1st segment of abdomen strongly and distinctly longitudinally striated. Length, 6 mill. Female. Taken in this neighbourhood.

I frequently take a *Pimpla*, which I believe is *P. detrita* of Holmgren; it is very distinct from any hitherto recorded British species. I have sent it to Dr. Capron; he thinks there is no doubt about the identification, and adds that he takes it commonly at Shere.

Norwich, December, 1879.

---

## NOTES ON THE RHOPALOCERA OF NATAL.

By A. J. SPILLER.

(Continued from p. 5.)

THE genus *Junonia* is generally numerous in most tropical and subtropical countries of the Old World, and in Natal is represented by eleven or twelve species. The loveliest is the magnificent *Junonia Anacardiæ*, or mother-of-pearl butterfly. It is indeed a fine sight to see half a dozen of these splendid insects, in company with an equal number of *J. Archesia*, settled on the sausage-shaped flowers of the cabbage tree. The commonest species of this genus are *Ænone* and *Clelia*, which are found everywhere in profusion. *J. Cloantha*, which inhabits